SONY

3-810-043-**31** (2)

FM/AM Cassette Car Stereo

Operating Instructions EN

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XR-C300 Serial No. _____

For installation and connections, see the supplied installation/connections manual.

XR-C300

© 1996 by Sony Corporation

Actual total number:

Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

EN

Welcome!

Thank you for purchasing the SONY Cassette Car Stereo. This unit lets you enjoy a variety of features by using a rotary remote.

In addition to the tape playback and the radio operation you can expand your system by connecting optional CD changer.

Actual total number:

Sony XR-C300 (**E**) 3-810-043-**31** (2)

Table of contents

This Unit Only

Getting Started

Resetting the unit 4
Detaching the front panel 4
Setting the clock 5

Cassette player

Listening to the tape 5
Playing the tape in various modes 6

Radio

Memorizing stations automatically
— Best Tuning Memory (BTM) 7
Memorizing only the desired stations 7
Receiving the memorized stations 7

Other Functions

Adjusting the sound characteristics 8
Muting the sound 8
Changing the sound and display settings 8

With Optional Equipment

CD changer

Playing a CD 8
Scanning the tracks — Intro scan 9
Playing tracks repeatedly
— Repeat play 9
Playing tracks in random order
— Shuffle play 9

Additional Information

Precautions 10
Maintenance 10
Dismounting the unit 11
The rotary commander labels 11
Location of controls 12
Specifications 13
Troubleshooting guide 14
Index ..... Back cover

EN

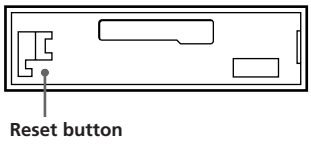
Actual total number:

Sony XR-C300 (**E**) 3-810-043-**31** (2)

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ball-point pen.



Reset button

Note

Pressing the reset button will erase all the memorized stations.

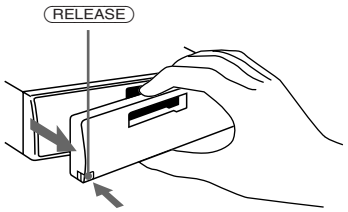
EN

Detaching the front panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

1 Press (OFF).

2 Press (RELEASE) to open up the front panel, and detach the panel by pulling it towards you.

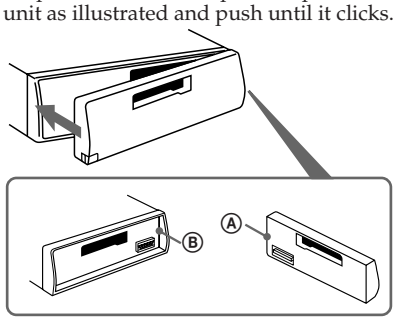


Notes

- *Be sure not to drop the panel when detaching it from the unit.*
- *If you press (RELEASE) to detach the panel while the unit is still turned on, the power will be automatically turned off in order to protect the speakers from being damaged.*

Attaching the front panel

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.



Notes

- *Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.*
- *Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.*
- *When you carry the front panel with you, put it in the supplied front panel case.*
- *Do not press hard or give excessive pressure to the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight, heat sources such as hot air ducts or leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.*

Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch is set to the Ⓐ position).

Actual total number:

Sony XR-C300 (E) 3-810-043-31 (2)

Setting the clock

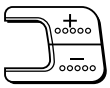
The clock has a 12-hour digital indication.
For example, setting it to 10:08

1 Press (OFF) or (DSPL) during operation.

2 Press (DSPL) for two seconds.

The hour digit blinks.

❶ Set the hour digits.



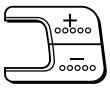
to go forward

to go back

❷ Press (SEL) momentarily.

The minute digit blinks.

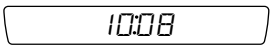
❸ Set the minute digits.



to go forward

to go back

3 Press (DSPL) momentarily.



The clock activates.

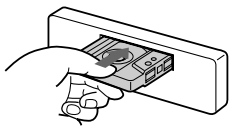
Note

If the POWER SELECT switch on the bottom of the unit is set to the Ⓑ position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio.

Cassette Player

Listening to the tape

Insert the cassette.



Playback will start automatically.

If the cassette is already inserted, press (TAPE) to start playback.

The side facing up is being played.

The side facing down is being played.

Tip

To change the tape transport direction, press (TAPE) during tape playback.

To	Press
Stop playback	(OFF)
Eject the cassette	⏏

Fast-winding the tape

During playback, press either side of (PRESET/DISC).

Rewind **Fast-forward**

To start playback during fast-forwarding or rewinding, press (TAPE).

Locating the beginning of the tracks — Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, press either side of (SEEK/AMS) momentarily.

To locate the previous tracks — **To locate the succeeding the tracks**

Note

The AMS function may not work when :

- *the blanks between tracks are shorter than 4 seconds*
- *there are noises*
- *there are long sections of low volume or quiet sections.*

Changing the displayed items

Each time you press (DSPL) momentarily during tape playback, the displayed item changes as follows:

Tape playback → Clock → Frequency*

* *While the ATA function is activated.*

Playing the tape in various modes

Searching the desired track — Intro scan

Press (1) during playback.
"INTRO" appears on the display.

The first 10 seconds of all the tracks are played.

When you find the desired track, press again. The unit returns to the normal playback mode.

Playing tracks repeatedly — Repeat play

Press (2) during playback.
"REP" appears on the display.

When the currently played track is over, it will be played again from the beginning.

To cancel this mode, press again.

Switching to the radio during fast-winding the tape — Automatic Tuner Activation (ATA)

Press (5) during playback.
"ATA" appears on the display.

When fast-forwarding or rewinding with (PRESET/DISC), the tuner will turn on automatically.

Skipping blanks during tape playback — Blank skip

Press (6) during playback.
"BL.SKIP" appears on the display.

Blanks longer than eight seconds will be automatically skipped during tape playback.

EN

Actual total number:

Sony XR-C300 (E) 3-810-043-**31** (2)

Radio

Memorizing stations automatically

— Best Tuning Memory (BTM)

This function selects from the currently received band the stations with the strongest signals and memorizes them in order of their frequency.

PREVENTING ACCIDENTS!
When tuning in during driving, use the automatic tuning and the memory preset search function instead of the manual tuning.

1 Press (TUNER) repeatedly and select the band.
Each time you press (TUNER), the band changes as follows:
FM1 → FM2 → FM3 → AM1 → AM2

2 Press (BTM) for two seconds.

Notes
- *The unit will not store stations with weak band frequencies on the preset number buttons. If there are only a few stations received, some preset number buttons will remain empty.*
- *When there is a preset number indicated on the display window, the unit will store stations on all preset number buttons from the one currently displayed.*

Memorizing only the desired Stations

Up to 6 stations on each band (FM1, FM2, FM3, AM1 and AM2) can be stored on the preset number buttons in order of your choice. Therefore, 18 stations can be memorized on FM.
If you try to store another station on the same preset number button, the previously stored station will be erased.

1 Press (TUNER) repeatedly, and select the band.

2 Press (SEEK/AMS) to search for the station which you wish to store on the preset number button.

3 Press the desired preset number button ((1) to (6)) for two seconds until a beep sounds.

The number of the pressed preset number button appears on the display window.

Receiving the memorized stations

1 Press (TUNER) repeatedly, and select the band.

2 Press the preset number button ((1) to (6)) momentarily on which the desired station is stored.

Tip
Press either side of (PRESET/DISC) momentarily to receive in order the stations stored in the memory (Preset Search Function).

If FM stereo reception is poor — Monaural mode

Press (MONO) momentarily.
"MONO" appears on the display.
The sound will improve, but it will become monaural. (The "ST" indication will disappear.)

Changing the displayed items

Each time you press (DSPL), the display item changes as follows:
Frequency ↔ Clock

If you can't tune in a preset station

Press either side of (SEEK/AMS) momentarily to search for the station (automatic tuning).
The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press (LCL) momentarily to display the "LCL" (local seek mode) indication. Only the stations with relatively strong signals can be tuned in.

Tip
If you know the frequency, press and hold either side of (SEEK/AMS) until the desired station is received (manual tuning).

EN

Actual total number:

Sony XR-C300 (E) 3-810-043-31 (2)

Other Functions

Adjusting the sound characteristics

1 Select the item you want to adjust by pressing (SEL) repeatedly.
VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)

2 Adjust the selected item by pressing either (+) or (−).

Adjust within three seconds after selecting. (After three seconds the button will again serve as volume control button.)

EN

Muting the sound

Press (MUTE).
The "MUTE" indication flashes.

To restore the previous volume level, press again.

Changing the sound and display settings

Enjoying bass and treble even at Low Volume — Loudness

Bass and treble will be reinforced.

Press (LOUD).
"LOUD" will appear on the display.

To cancel, press again.

Muting the beep tone

Press (6) while pressing (SEL).
To obtain the beep tone again, press these buttons once more.

With the Optional Equipment

CD Changer

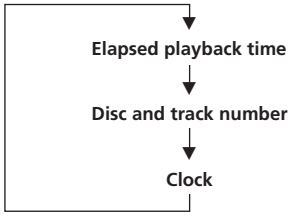
You can control two CD changers.

Playing a CD

Press (CD) and select the changer.
CD playback starts.

When a CD changer is connected, all the tracks play from the beginning.

Each time you press (DSPL) momentarily during CD playback, the displayed item changes as follows:



Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) the number of times you wish to skip the tracks.

To locate the previous tracks — **To locate the succeeding tracks**

Locating a specific point in a track — Manual Search

During playback, press and hold either side of (SEEK/AMS). Release the button when you have found the desired part.

To reverse — **To forward**

Switching to other discs

During playback, press either side of (PRESET/DISC).

To return to the previous disc — **To advance to the next disc**

Actual total number:

Scanning the tracks

— Intro scan

The first 10 seconds of all the tracks on the currently selected disc are played in order. After the first disc is over, the next disc is played.

Press ① during playback.
"INTRO" appears on the display.

When you find the desired track, press again . The unit returns to the normal CD playback mode.

Playing tracks repeatedly

— Repeat play

To repeat a track

Press ② repeatedly during CD playback until "REP 1" is displayed.

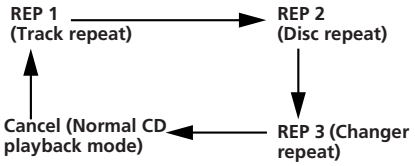
To repeat a disc

Press ② repeatedly during CD playback until "REP 2" is displayed.

To repeat all the discs in the current changers

Press ② repeatedly during CD playback until "REP 3" is displayed.

Each time you press ② the display changes as follows:



Playing tracks in random order — Shuffle play

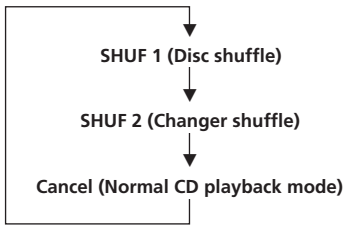
To play the tracks on the current disc in a random order

Press ③ repeatedly during CD playback until "SHUF 1" is displayed.

To play the discs in the current changer in a random order

Press ③ repeatedly during CD playback until "SHUF 2" is displayed.

Each time you press ③ the display changes as follows:



If you press ① during shuffle play, the first 10 seconds of all tracks will be played in random order.

Actual total number:

Sony XR-C300 (E) 3-810-043-31 (2)

Additional Information

Precautions

- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before switching on.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a 2-speaker system, set the fader control to the center position.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

EN

Notes on Cassettes

Cassette care

- Do not touch the tape surface of a cassette, as any dirt or dust will contaminate the heads.
- Keep cassettes away from equipment with built-in magnets such as speakers and amplifiers, as erasure or distortion on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.
- When the tape is played back for a long period, the cassette shell may become warm because of the built-in power amplifier. However, this is not a sign of a malfunction.

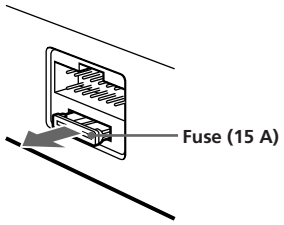
Cassettes longer than 90 minutes

The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tapes used for these cassettes are very thin and tend to be stretched easily. Frequent playing and stopping of these tapes may cause them to be pulled into the cassette deck mechanism.

Maintenance

Fuse Replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

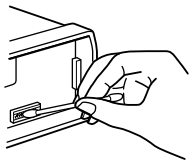


Warning

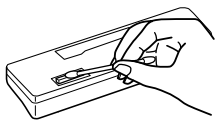
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing (RELEASE), then detach it and clean with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connector may get damaged.



Main unit



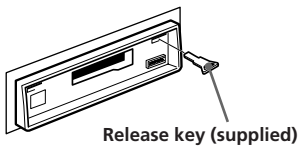
Back of the front panel

Actual total number:

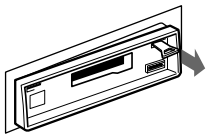
Sony XR-C300 (E) 3-810-043-31 (2)

Dismounting the unit

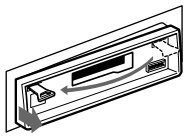
1



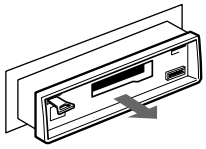
2



3

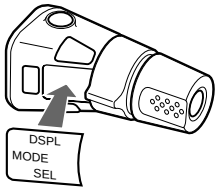


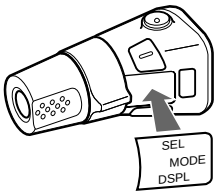
4



The rotary commander labels

You can control this unit with the optional rotary remote (RM-X2S).
Some labels are supplied with the rotary remote. Attach that label which matches the functions of the master unit and the mounting position of the rotary remote.
When you mount the rotary remote, attach the label in the illustration below.

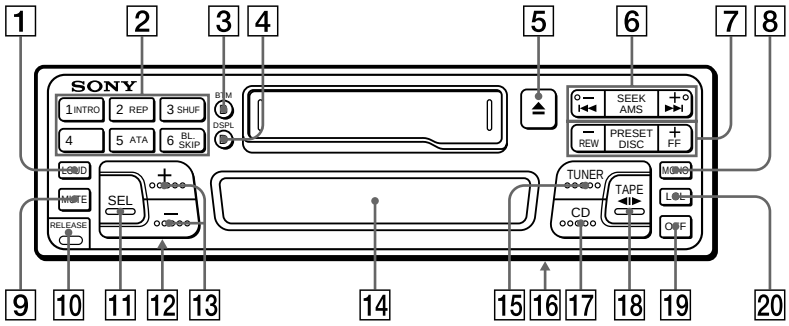




Actual total number:

Sony XR-C300 (E) 3-810-043-31 (2)

Location of controls



EN

Refer to the pages for further details.

1 **LOUD (loudness) button 8**

2 **During radio reception:**
Preset number buttons 7

During tape/CD playback:
① **INTRO button 6, 9**
② **REPEAT button 6, 9**
③ **SHUF button 9**
⑤ **ATA (Automatic Tuner Activation) button 6**
⑥ **BL.SKIP button 6**

3 **BTM (Best tuning memory function) button 7**

4 **DSPL (display mode change/time set) button 5, 6, 8**

5 **⏏ (eject) button 5**

6 **SEEK/AMS button 6, 7, 8**

7 **PRESET/DISC button 5, 6, 7, 8**

8 **MONO button 7**

9 **MUTE button 8**

10 **RELEASE (front panel release) button 4, 10**

11 **SEL (control mode select) button 5, 8**

12 **Reset button (located on the front side of the unit hidden by the front panel)**
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

13 **⊕⊖ (volume/bass/treble/balance/fader control) button 5, 8**

14 **Display window**

15 **TUNER (radio on/band select) button 7**

16 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT Switch" in the installation/Connections manual.

17 **CD (disc play/CD changer select) button 8**

18 **TAPE/◀I▶ (playback/transport direction change) button 5**

19 **OFF button 4, 5**

20 **LCL (local seek adjust) button 7**

Actual total number:

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
8 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1% total harmonic distortion.

Other Specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	58 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.5 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	25 W × 4 (at 4 ohms)

General

Outputs	Line out (1) Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 177 mm ($7\,^1/_2 \times 2\,^3/_8 \times 7$ in.) (w/h/d)
Mounting dimension	Approx. 182 × 53 × 155 mm ($7\,^1/_4 \times 2\,^1/_8 \times 6\,^1/_8$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 ib. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)
Optional accessories	Bus cable (supplied with an RCA pin cord) RC-61 (1 m), RC-62 (2 m) RCA pin cord RC-63 (1 m), RC-64 (2 m), RC-65 (5 m)
Optional equipment	Rotary commander RM-X2S Source selector XA-U20

Design and specifications are subject to change without notice.

EN

Actual total number:

Sony XR-C300 (**E**) 3-810-043-**31** (2)

Troubleshooting guide

The following check will assist in the correction of most problems which you may encounter with your unit.
Before going through the check list below, refer to the operating procedures.

General

Problem	Cause/Solution
No sound	• Adjust the volume with (+). • Set the fader control to the center position on the 2-speaker system.
Indications do not appear on the display window.	Remove the front panel and clean the connectors. See "Cleaning the Connectors" of "Maintenance" for details.

Tape playback

Problem	Cause/Solution
Playback sound is distorted.	Contamination of the tape head. → Clean the head.
The AMS does not operate correctly.	• There is a noise in the space between tracks. • A blank space is too short (less than four seconds). • ▶▶I on (SEEK/AMS) is pressed immediately before the following track. • I◀◀ on (SEEK/AMS) is pressed immediately after the track starts. • A long pause, or a passage of low frequencies or very low sound level is treated as a blank space.

Radio reception

Problem	Cause/Solution
Preset tuning is not possible.	• Memorize the correct frequency. • The broadcast is too weak.
Automatic tuning is not possible.	The broadcast is too weak. → Use the manual tuning.
The "ST" indication flashes.	• Tune in precisely. • The broadcast is too weak. → Press (MONO) to enter the MONO mode.

Disc play

Problem	Cause/Solution
Playback sound skips.	A dusty or defective disc.

EN

Actual total number:

Error displays (with the optional CD changer(s) connected)

The following indications will flash for about five seconds and an alarm sound will be heard.

Display	Cause	Solution
E-01	A disc magazine is not inserted in the CD changer.	Insert a disc magazine with discs into the CD changer.
E-02	No disc is inserted in the disc magazine.	Take out the magazine and insert the discs.
E-04	The disc is dirty.	Clean the disc.
	The disc is inserted upside down.	Insert the disc correctly.
E-99	The CD changer cannot be operated because of some problem.	Press the reset button on the unit.
TEMP	The ambient temperature is more than 50°C.	Wait until the temperature goes down below 50°C.

If the above-mentioned solutions do not help to improve the situation, consult your nearest Sony dealer.

Actual total number:

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Index

A

Automatic Music Sensor (AMS) 6, 8
Automatic tuning 7
Automatic Tuner Activation (ATA) 6

B

Bass 8
Balance 8
Best Tuning Memory (BTM) 7
Blank skip 6

C

Caution alarm 4
CD playback 8
Clock 5

D, E

Display 5, 6, 8

F, G, H

Fader 8
Fast-forward 5
Front panel 4
Fuse 10

I, J, K

Intro scan 6, 9

L

Local seek mode (LCL) 7
Loudness 8

M, N, O, P, Q

Manual search 8
Manual tuning 7
Mute 8

R

Radio 7
Repeat play 6, 8
Reset 4
Rewind 5
Rotary commander 11

S

Shuffle play 9

T, U, V, W, X, Y, Z

Tape playback 5
Treble 8

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